

CLAIMS

[001] A dishwashing machine having a dosing device (3) for the addition of additives, e.g. in the washing container (1), characterised in that at least one basic chemical product (A, B, C, D, E) not used for clear rinsing and/or at least two basic chemical products (A, B, C, D, E) together, but not all the basic chemical products (A, B, C, D, E) of an all-round product together, and/or at least one reaction mixture (R) consisting of basic chemical products (A, B, C, D, E) can be added independently.

[002] The dishwashing machine according to claim 1, characterised in that at least a portion of the basic chemical products (A, B, C, D, E) of an all-round product can be added.

[003] The dishwashing machine according to claim 1 or claim 2, characterised in that the reaction mixture (R), e.g. a liquid or a gas, can be produced in the dosing device in a micro-reactor (10) at least in part by a chemical reaction.

[004] The dishwashing machine according to any one of the preceding claims, characterised in that only those basic chemical products (A, B, C, D, E) or reaction mixtures (R) which are required for a process step, e.g. for cleaning, are added.

[005] The dishwashing machine according to any one of the preceding claims, characterised in that the basic chemical products (A, B, C, D, E) are stored in refillable or exchangeable storage containers (4, 5, 6, 7, 8) which are preferably constructed in the form of common housing with partition walls or in individual separate units.

[006] The dishwashing machine according to any one of the preceding claims, characterised in that the basic chemical products (A, B, C, D, E) are a liquid, a gel or a powdery/granular solid, especially as concentrate.

[007] The dishwashing machine according to any one of the claims 3 to 6, characterised in that the basic chemical products (A, B, C, D, E) can be supplied to the micro-reactor

(10) and/or the washing container (1) using a conveying device, especially a micro-dosing pump (9), e.g. a flexible tube pump or gear pump.

[008] The dishwashing machine according to any one of the preceding claims, characterised in that the addition parameters, time and quantity of the basic chemical products (A, B, C, D, E) or the reaction mixture (R) for a process step can be regulated depending on the process steps and/or the actual contamination which is detected automatically using sensors or manually.

[009] The dishwashing machine according to any one of the preceding claims, characterised in that the supply of the basic chemical products (A, B, C, D, E) or the reaction mixture (R) can be regulated by means of a monitoring device and in the event of a fault, a visual and/or audible fault indication can be made, wherein an automatic program interruption is preferably possible.

[010] The dishwashing machine according to any one of the claims 5 to 9, characterised in that the filling level in the storage containers (4, 5, 6, 7, 8) can be measured by level sensors and can be displayed visually by a display device and preferably, if the level is too low, a visual and/or audible warning can be carried out.

[011] The dishwashing machine according to claim 10, characterised in that in a dishwashing machine with an internet connection, the filling level of the storage containers (4, 5, 6, 7, 8) can be automatically notified to a dispatch device and if required, after a request from the user or automatically, basic chemical products (A, B, C, D, E) can be dispatched in exchangeable storage containers (4, 5, 6, 7, 8) or as storage packs for refilling the storage containers (4, 5, 6, 7, 8).

[012] A method for dosing additives, e.g. in the washing container (1) in a dishwashing machine, characterised in that at least one basic chemical product (A, B, C, D, E) not used for clear rinsing and/or at least two basic chemical products (A, B, C, D, E) together, but not all the basic chemical products (A, B, C, D, E) of an all-round product together,

and/or at least one reaction mixture (R) consisting of basic chemical products (A, B, C, D, E) can be added independently.

[013] The method according to claim 12, characterised in that at least a portion of the basic chemical products (A, B, C, D, E) of an all-round product can be added.

[014] The method according to claim 12 or claim 13, characterised in that only those basic chemical products (A, B, C, D, E) or reaction mixtures (R) which are required for a process step, e.g. for cleaning, are added using a conveying device, e.g. a micro-pump (9).

[015] The method according to any one of claims 12 to 14, characterised in that the basic chemical products (A, B, C, D, E) react in a micro-reactor (10) at least partly by a chemical reaction to form a, for example, liquid or gaseous reaction mixture (R),

[016] The method according to claim 14 or claim 15, characterised in that basic chemical products (A, B, C, D, E) are supplied to the micro-reactor (10) and/or the washing container (1) in a precisely metered manner by a micro-dosing pump (9).

[017] The method according to any one of claims 12 to 16, characterised in that the addition parameters, time and quantity of the basic chemical products (A, B, C, D, E) or the reaction mixture (R) for a process step can be regulated depending on the process steps and/or the actual contamination which is detected automatically using sensors or manually.